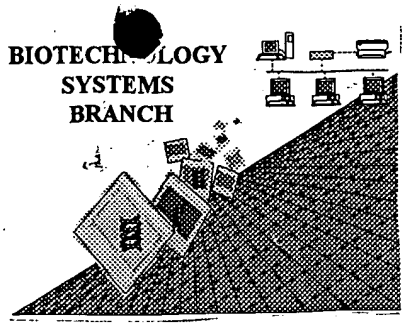
0590
1017

BIOTECHNOLOGY SYSTEMS BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/942,252

Source: OIPE

Date Processed by STIC: 9/18/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

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Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker

OIPE

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PATENT APPLICATION: US/09/942,252 TIME: 11:25:53

p.4

Input Set : A:\GENO 2002 Sequence Listing.txt
Output Set: N:\CRF3\09182001\I942252.raw

Does Not Comply
Corrected Diskette Needed

```
 3 <110> APPLICANT: Messier, Walter
 4       Sikela, James M
 6 <120> TITLE OF INVENTION: Methods to Identify Polynucleotide and Polypeptide
 7       Sequences Which May Be Associated with Physiological
 8       and Medical Conditions
10 <130> FILE REFERENCE: GENO 200.2/CIP
12 <140> CURRENT APPLICATION NUMBER: US/09/942,252
13 <141> CURRENT FILING DATE: 2001-08-28
15 <150> PRIOR APPLICATION NUMBER: 09/591,435
16 <151> PRIOR FILING DATE: 2000-06-09
18 <150> PRIOR APPLICATION NUMBER: 09/240,915
19 <151> PRIOR FILING DATE: 1999-01-29
21 <150> PRIOR APPLICATION NUMBER: 60/073,263
22 <151> PRIOR FILING DATE: 1998-01-30
24 <150> PRIOR APPLICATION NUMBER: 60/098,987
25 <151> PRIOR FILING DATE: 1998-09-02
27 <160> NUMBER OF SEQ ID NOS: 30
29 <170> SOFTWARE: PatentIn Ver. 2.0
```

ERRORED SEQUENCES

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1466 <210> SEQ ID NO: 16
1467 <211> LENGTH: 1207
1468 <212> TYPE: PRT
1469 <213> ORGANISM: Homo sapiens
1471 <400> SEQUENCE: 16
1472 Met Gln Phe Leu Glu Glu Val Gln Pro Tyr Arg Ala Leu Lys His Ser
1473   1               5                  10                  15
1475 Asn Leu Leu Gln Cys Leu Ala Gln Cys Ala Glu Val Thr Pro Tyr Leu
1476              20                  25                  30
1478 Leu Val Met Glu Phe Cys Pro Leu Gly Asp Leu Lys Gly Tyr Leu Arg
1479          35                  40                  45
1481 Ser Cys Arg Val Ala Glu Ser Met Ala Pro Asp Pro Arg Thr Leu Gln
1482      50                  55                  60
1484 Arg Met Ala Cys Glu Val Ala Cys Gly Val Leu His Leu His Arg Asn
1485  65                  70                  75                  80
1487 Asn Phe Val His Ser Asp Leu Ala Leu Arg Asn Cys Leu Leu Thr Ala
1488                 85                  90                  95
1490 Asp Leu Thr Val Lys Ile Gly Asp Tyr Gly Leu Ala His Cys Lys Tyr
1491             100                 105                 110
1493 Arg Glu Asp Tyr Phe Val Thr Ala Asp Gln Leu Trp Val Pro Leu Arg
1494         115                 120                 125
1496 Trp Ile Ala Pro Glu Leu Val Asp Glu Val His Ser Asn Leu Leu Val
1497     130                 135                 140
1499 Val Asp Gln Thr Lys Ser Gly Asn Val Trp Ser Leu Gly Val Thr Ile
1500 145                 150                 155                 160
```

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Input Set : A:\GENO 2002 Sequence Listing.txt
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```
1502 Trp Glu Leu Phe Glu Leu Gly Thr Gln Pro Tyr Pro Gln His Ser Asp
1503                 165                 170                 175
1505 Gln Gln Val Leu Ala Tyr Thr Val Arg Glu Gln Gln Leu Lys Leu Pro
1506             180                 185                 190
1508 Lys Pro Gln Leu Gln Leu Thr Leu Ser Asp Arg Trp Tyr Glu Val Met
1509         195                 200                 205
1511 Gln Phe Cys Trp Leu Gln Pro Glu Gln Arg Pro Thr Ala Glu Glu Val
1512     210                 215                 220
1514 His Leu Leu Leu Ser Tyr Leu Cys Ala Lys Gly Ala Thr Glu Ala Glu
1515 225                 230                 235                 240
1517 Glu Glu Phe Glu Arg Arg Trp Arg Ser Leu Arg Pro Gly Gly Gly Gly
1518                 245                 250                 255
1520 Val Gly Pro Gly Pro Gly Ala Ala Gly Pro Met Leu Gly Gly Val Val
1521             260                 265                 270
1523 Glu Leu Ala Ala Ala Ser Ser Phe Pro Leu Leu Glu Gln Phe Ala Gly
1524         275                 280                 285
1526 Asp Gly Phe His Ala Asp Gly Asp Asp Val Leu Thr Val Thr Glu Thr
1527     290                 295                 300
1529 Ser Arg Gly Leu Asn Phe Glu Tyr Lys Trp Glu Ala Gly Arg Gly Ala
1530 305                 310                 315                 320
1532 Glu Ala Phe Pro Ala Thr Leu Ser Pro Gly Arg Thr Ala Arg Leu Gln
1533                 325                 330                 335
1535 Glu Leu Cys Ala Pro Asp Gly Ala Pro Pro Gly Val Val Pro Val Leu
1536             340                 345                 350
1538 Ser Ala His Ser Pro Ser Leu Gly Ser Glu Tyr Phe Ile Arg Leu Glu
1539         355                 360                 365
1541 Glu Ala Ala Pro Ala Ala Gly His Asp Pro Asp Cys Ala Gly Cys Ala
1542     370                 375                 380
1544 Pro Ser Pro Pro Ala Thr Ala Asp Gln Asp Asp Asp Ser Asp Gly Ser
1545 385                 390                 395                 400
1547 Thr Ala Ala Ser Leu Ala Met Glu Pro Leu Leu Gly His Gly Pro Pro
1548                 405                 410                 415
1550 Val Asp Val Pro Trp Gly Arg Gly Asp His Tyr Pro Arg Arg Ser Leu
1551             420                 425                 430
1553 Ala Arg Asp Pro Leu Cys Pro Ser Arg Ser Pro Ser Pro Ser Ala Gly
1554         435                 440                 445
1556 Pro Leu Ser Leu Ala Glu Gly Gly Ala Glu Asp Ala Asp Trp Gly Val
1557     450                 455                 460
1559 Ala Ala Phe Cys Pro Ala Phe Phe Glu Asp Pro Leu Gly Thr Ser Pro
1560 465                 470                 475                 480
1562 Leu Gly Ser Ser Gly Ala Pro Pro Leu Pro Leu Thr Gly Glu Asp Glu
1563                 485                 490                 495
1565 Leu Glu Glu Val Gly Ala Arg Arg Ala Ala Gln Arg Gly His Trp Arg
1566             500                 505                 510
1568 Ser Asn Val Ser Ala Asn Asn Asn Ser Gly Ser Arg Cys Pro Glu Ser
1569         515                 520                 525
1571 Trp Asp Pro Val Ser Ala Gly Cys His Ala Glu Gly Cys Pro Ser Pro
1572     530                 535                 540
1574 Lys Gln Thr Pro Arg Ala Ser Pro Glu Pro Gly Tyr Pro Gly Glu Pro
```

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```
1575 545                 550                 555                 560
1577 Leu Leu Gly Leu Gln Ala Ala Ser Ala Gln Glu Pro Gly Cys Cys Pro
1578                 565                 570                 575
1580 Gly Leu Pro His Leu Cys Ser Ala Gln Gly Leu Ala Pro Ala Pro Cys
1581             580                 585                 590
1583 Leu Val Thr Pro Ser Trp Thr Glu Thr Ala Ser Ser Gly Gly Asp His
1584         595                 600                 605
1586 Pro Gln Ala Glu Pro Lys Leu Ala Thr Glu Ala Glu Gly Thr Thr Gly
1587     610                 615                 620
1589 Pro Arg Leu Pro Leu Pro Ser Val Pro Ser Pro Ser Gln Glu Gly Ala
1590 625                 630                 635                 640
1592 Pro Leu Pro Ser Glu Glu Ala Ser Ala Pro Asp Ala Pro Asp Ala Leu
1593                 645                 650                 655
1595 Pro Asp Ser Pro Thr Pro Ala Thr Gly Gly Glu Val Ser Ala Ile Lys
1596             660                 665                 670
1598 Leu Ala Ser Ala Leu Asn Gly Ser Ser Ser Ser Pro Glu Val Glu Ala
1599         675                 680                 685
1601 Pro Ser Ser Glu Asp Glu Asp Thr Ala Glu Ala Thr Ser Gly Ile Phe
1602     690                 695                 700
1604 Thr Asp Thr Ser Ser Asp Gly Leu Gln Ala Arg Arg Pro Asp Val Val
1605 705                 710                 715                 720
1607 Pro Ala Phe Arg Ser Leu Gln Lys Gln Val Gly Thr Pro Asp Ser Leu
1608                 725                 730                 735
1610 Asp Ser Leu Asp Ile Pro Ser Ser Ala Ser Asp Gly Gly Tyr Glu Val
1611             740                 745                 750
1613 Phe Ser Pro Ser Ala Thr Gly Pro Ser Gly Gly Gln Pro Arg Ala Leu
1614         755                 760                 765
1616 Asp Ser Gly Tyr Asp Thr Glu Asn Tyr Glu Ser Pro Glu Phe Val Leu
1617     770                 775                 780
1619 Lys Glu Ala Gln Glu Gly Cys Glu Pro Gln Ala Phe Ala Glu Leu Ala
1620 785                 790                 795                 800
1622 Ser Glu Gly Glu Gly Pro Gly Pro Glu Thr Arg Leu Ser Thr Ser Leu
1623                 805                 810                 815
1625 Ser Gly Leu Asn Glu Lys Asn Pro Tyr Arg Asp Ser Ala Tyr Phe Ser
1626             820                 825                 830
1628 Asp Leu Glu Ala Glu Ala Glu Ala Thr Ser Gly Pro Glu Lys Lys Cys
1629         835                 840                 845
1631 Gly Gly Asp Arg Ala Pro Gly Pro Glu Leu Gly Leu Pro Ser Thr Gly
1632     850                 855                 860
1634 Gln Pro Ser Glu Gln Val Cys Leu Arg Pro Gly Val Ser Gly Glu Ala
1635 865                 870                 875                 880
1637 Gln Gly Ser Gly Pro Gly Glu Val Leu Pro Pro Leu Leu Gln Leu Glu
1638                 885                 890                 895
1640 Gly Ser Ser Pro Glu Pro Ser Thr Cys Pro Ser Gly Leu Val Pro Glu
1641             900                 905                 910
1643 Pro Pro Glu Pro Gln Gly Pro Ala Lys Val Arg Pro Gly Pro Ser Pro
1644         915                 920                 925
1646 Ser Cys Ser Gln Phe Phe Leu Leu Thr Pro Val Pro Leu Arg Ser Glu
1647     930                 935                 940
```

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Input Set : A:\GENO 2002 Sequence Listing.txt
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```
1649 Gly Asn Ser Ser Glu Phe Gln Gly Pro Pro Gly Leu Leu Ser Gly Pro
1650 945                 950                 955                 960
1652 Ala Pro Gln Lys Arg Met Gly Gly Pro Gly Thr Pro Arg Ala Pro Leu
1653                 965                 970                 975
1655 Arg Leu Ala Leu Pro Gly Leu Pro Ala Ala Leu Glu Gly Arg Pro Glu
1656             980                 985                 990
1658 Glu Glu Glu Glu Asp Ser Glu Asp Ser Asp Glu Ser Asp Glu Glu Leu
1659         995                1000                1005
1661 Arg Cys Tyr Ser Val Gln Glu Pro Ser Glu Asp Ser Glu Glu Glu Ala
1662    1010                1015                1020
1664 Pro Ala Val Pro Val Val Val Ala Glu Ser Gln Ser Ala Arg Asn Leu
E--> 1665 025 1025          1030                1035                1040
1667 Arg Ser Leu Leu Lys Met Pro Ser Leu Leu Ser Glu Thr Phe Cys Glu
1668                 1045                1050                1055
1670 Asp Leu Glu Arg Lys Lys Lys Ala Val Ser Phe Phe Asp Asp Val Thr
1671             1060                1065                1070
1673 Val Tyr Leu Phe Asp Gln Glu Ser Pro Thr Arg Glu Leu Gly Glu Pro
1674         1075                1080                1085
1676 Phe Pro Gly Ala Lys Glu Ser Pro Pro Thr Phe Leu Arg Gly Ser Pro
1677    1090                1095                1100
1679 Gly Ser Pro Ser Ala Pro Asn Arg Pro Gln Gln Ala Asp Gly Ser Pro
E--> 1680 105 1105           1110                1115                1120
1682 Asn Gly Ser Thr Ala Glu Glu Gly Gly Gly Phe Ala Trp Asp Asp Asp
1683                 1125                1130                1135
1685 Phe Pro Leu Met Thr Ala Lys Ala Ala Phe Ala Met Ala Leu Asp Pro
1686             1140                1145                1150
1688 Ala Ala Pro Ala Pro Ala Ala Pro Thr Pro Thr Pro Ala Pro Phe Ser
1689         1155                1160                1165
1691 Arg Phe Thr Val Ser Pro Ala Pro Thr Ser Arg Phe Ser Ile Thr His
1692    1170                1175                1180
1694 Val Ser Asp Ser Asp Ala Glu Ser Lys Arg Gly Pro Glu Ala Gly Ala
E--> 1695 185 1185           1190                1195                1200
1697 Gly Gly Glu Ser Lys Glu Ala
1698                 1205
```

When numbering first amino acid on a line, begin number directly under first letter of amino acid e.g. Pro 1025

VERIFICATION SUMMARY DATE: 09/18/2001
PATENT APPLICATION: US/09/942,252 TIME: 11:25:54

Input Set : A:\GENO 2002 Sequence Listing.txt
Output Set: N:\CRF3\09182001\I942252.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1665 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:16
M:332 Repeated in SeqNo=16